ENERGY AND ENVIRONMENT CABINET

Department for Environmental Protection

Division of Waste Management

(New Administrative Regulation)

401 KAR 48:205. Technical Requirements for Petroleum Contaminated Soil Treatment Facilities.

RELATES TO: KRS 224.01-010, 224.10-100, 224.10-105, 224.20-150, 224.40-100, 224.40-305, 224.40-330, 224.40-605, 224.40-650, 224.70-100, 224.70-110, 224.99-010, 224.99-020

STATUTORY AUTHORITY: KRS 224.10-100(19)(c), (24), 224.40-100, 224.40-305

NECESSITY, FUNCTION AND CONFORMITY: KRS 224.10-100(19)(c), (24) and 224.40-305 authorize the cabinet to promulgate administrative regulations for the management, processing, and disposal of wastes. KRS 224.40-305 requires that persons engaging in the management, processing, and disposal of solid waste obtain a permit. This administrative regulation establishes requirements for petroleum contaminated soil treatment facilities.

Section 1. Definitions. As used in this administrative regulation:

(1) "Asphalt Plant Aggregate Dryer" means a Low-Temperature Thermal Desorption unit identical in design to a countercurrent Rotary Dryer, but may not have a secondary treatment chamber, typically operates at a soil discharge temperature range from 300 degrees to 600 degrees Fahrenheit, and produces treated soil suitable for use as hot mix asphalt aggregate only.

An Asphalt Plant Aggregate Dryer shall operate only in conjunction with a hot mix asphalt operation that uses the treated soil immediately upon being discharged from the treatment unit.

(2) "Biopile" means a contained vessel or a lined and covered pile used for the biological treatment of petroleum contaminated soil.

(3) "Conveyor Furnace" means a Low-Temperature Thermal Desorption unit consisting of a flexible metal belt which conveys petroleum contaminated soil though the heating chamber. Soil agitators lift and turn the soil to enhance heat transfer. Organic vapors exiting the chamber are destroyed in an afterburner.

(4) "Low-Temperature Thermal Desorption" means an *ex-situ* treatment technology that uses heat to physically separate petroleum hydrocarbons from excavated soils that have been screened to remove objects greater than two (2) inches in diameter. Low-temperature thermal desorption units heat soils to temperatures sufficient to volatilize petroleum hydrocarbons and may cause some hydrocarbons to completely or partially decompose. Vaporized hydrocarbons may be additionally treated in a secondary treatment chamber consisting of an afterburner, catalytic oxidation camber, condenser, or carbon absorption unit.

(5) "Petroleum contaminated soil" means silt, sand, clay, gravel, or other earthen material; asphalt, concrete, or absorbent materials containing hydrocarbon concentrations above the levels established in 401 KAR 48:205, Section 6, Table 2, but does not exhibit a hazardous characteristic or is not a listed hazardous waste as defined in 401 KAR Chapter 31.

(6) "Petroleum contaminated soil treatment facility" means a solid waste site or facility where petroleum contaminated soil is treated to reduce contaminant concentrations to or below the levels established in 401 KAR 48:205, Section 6, Table 2.

(7) "Rotary Dryer" means a Low-Temperature Thermal Desorption unit that is a cylindrical metal reactor in which soil is brought into contact with heated purge gases, raising the temperature of the soil to physically separate petroleum hydrocarbons from the soil. Soil passing through the unit are lifted and turned to ensure all soil particles are sufficiently heated to adequately vaporize petroleum hydrocarbons out of the soil. Soil may pass through the unit concurrently or countercurrently to the direction of the purge gas flow.

(8) "Thermal Screw" means a Low-Temperature Thermal Desorption unit consisting of a series of augers that convey, mix, and heat soil to volatilize petroleum hydrocarbons into a purge gas stream, with the exiting organic vapors either collected or destroyed. Heat is provided indirectly by hot oil or steam circulated through hollow stem augers and the jacketed trough in which each auger rotates.

(9) "Wellhead protection area" means:

(a) The surface and subsurface area surrounding a water well, well field, or spring, supplying a public water system, through which pollutants are reasonably likely to move toward and reach the water well, well field, or spring; or

(b) An area defined as a wellhead protection area in a county water supply plan.

Section 2. Applicability. (1) This administrative regulation establishes minimum standards for the requirements which shall be met for site selection, design, operation, and closure of a petroleum contaminated soil treatment facility.

(2) This administrative regulation applies to persons conducting treatment of excavated petroleum contaminated soils.

Section 3. Siting and Design Requirements for Petroleum Contaminated Soil Treatment Facilities. (1) Treatment processes shall include:

(a) Low Temperature Thermal Desorption, and

(b) Biopiles.

(2)(a) Facility design and operation shall be as established in this administrative regulation and "How to Evaluate Alternative Cleanup Technologies for Underground Storage Tank Sites: A Guide for Corrective Action Plan Reviewers" (EPA 510-B-94-003; EPA 510-B-95-007; and EPA 510-R-04-002), Chapter IV, Biopiles, and Chapter VI, Low-Temperature Thermal Desorption.

(b) Designs and plans constituting the practice of engineering shall be prepared by a professional engineer licensed in the Commonwealth of Kentucky and shall bear the professional engineer's seal, original signature, and date as established in KRS Chapter 322.

(3) Siting Considerations. (a) Petroleum contaminated soil treatment facilities shall maintain buffer zone distances as established in Table 1 of this subsection.

Table 1. Required Buffer Zones for a Petroleum Contaminated Soil Treatment Facility, Minimum Distance in Feet

Structure or Feature	Petroleum Contaminated Soil, Closest Boundary (ft)
Residences & occupied buildings	500
Drinking water well	300
Surface water body or wetland	300
Perennial stream	300
Karst feature	300
Public road	50
Intermittent or ephemeral stream	50
Property line	50

(b) Petroleum contaminated soil treatment facilities shall not be located in a 100-year floodplain, wellhead protection area or wetlands.

(4)(a) Storage and preparation of soil to be treated shall be conducted in a roofed enclosure with a concrete floor or an enclosed container.

(b) Temporary storage of incoming materials, shall not exceed seven (7) days, and shall be:

1. In trucks, trailers, or storage containers with impermeable covers; or

2. On an impermeable pad or synthetic liner with a minimum thickness of thirty (30) mils, with an impermeable cover.

(c) Storage and preparation areas shall be designed to control run-on and run-off.

(5) Biopiles. A biopile treatment system shall include the following:

(a) A liner system with a minimum slope of two (2) percent, designed to contain and capture liquids, that has the following, from bottom to top;

1. A subgrade;

2.a. A twelve (12) inch thick compacted clay liner (CCL); or

b.(i) A twelve (12) inch thick geosynthetic clay liner (GCL) support layer with a maximum remolded coefficient of permeability of 1×10^{-7} centimeters per second in the laboratory; and

(ii) A GCL with a demonstrated hydraulic conductivity less than 5×10^{-9} centimeters per second;

3. A sixty (60) mil thick High-Density Polyethylene (HDPE);

4. a. A granular leachate collection layer and leachate collection system with an overlain geotextile; and

b. An equivalent Synthetic Drainage Layer (SDL) meeting the following requirements:

(i) The SDL shall not be adversely affected, chemically or physically, by waste placement or leachate; and

(ii) Documentation shall be submitted to ensure chemical compatibility of the SDL chosen.

5. A twelve (12) inch thick soil layer with a minimum permeability of 1.0×10^{-3} centimeters per second to protect the liner system; or

(b) A reinforced six (6) inch thick concrete pad with a minimum slope of two (2) percent designed to contain and capture liquids that have the following, from bottom to top;

1. The pad shall be overlain by a sixty (60) mil thick HDPE liner; and

2. a. A granular leachate collection layer, and leachate collection system with an overlain geotextile; or

b. An equivalent SDL; and

3. A twelve (12) inch thick soil layer with a minimum permeability of 1.0×10^{-3} centimeters per second to protect the liner system;

(c) An air inlet and air extraction system with off-gas collection and treatment;

(d) A nutrient and moisture injection system;

(e) A synthetic cover;

(f) A berm sufficient to control run-on and run-off from a twenty-four (24) hour, 100-year storm event; and

(g) The construction of the liners in paragraphs (a) and (b) of this subsection shall comply with the quality assurance and quality control requirements of 401 KAR 48:206, 48:207, and 48:208.

(6) Low-Temperature Thermal Desorption.

(a) A low-temperature thermal desorption facility shall obtain fiscal court approval and an air contaminant source permit from the Division of Air Quality in accordance with KRS 224.20-150.

(b) The treatment system shall be one of the following:

1. Rotary dryer;

2. Asphalt Plant Aggregate dryer;

3. Thermal screw; or

4. Conveyor furnace.

(c) The design shall include off-gas collection and treatment system and a particulate collector.

(d) Treated soil shall be stored as established in subsection (4) of this section until analytical results demonstrate that it meets the limits as established in Section 6(1), Table 2 of this administrative regulation.

Section 4. Procedures for Excluding the Receipt of Wastes Other Than Petroleum Contaminated Soil. (1)(a) The permittee shall implement a program at the facility for detecting and preventing the receipt of non-permitted wastes.

(b) These non-permitted waste streams include:

1. Household wastes including garbage;

2. Conditionally exempt small quantity generator (CESQG) hazardous wastes;

3. Hazardous waste exempt spill residues;

4. Hazardous wastes as defined in 401 KAR Chapter 31;

5. Polychlorinated biphenyl (PCB) wastes; and

6. Other non-permitted wastes.

(2) This program shall include:

(a) Visual inspection of all waste as it is delivered;

(b) Random inspections of incoming loads;

(c) Inspection of suspicious loads;

(d) Records of inspections;

(e) Training of facility personnel to recognize wastes that are not permitted wastes;

(f) Procedures for notifying the proper authorities if a hazardous or PCB waste is discovered at the facility;

(g) Procedures to remove and transport solid or special wastes other than permitted wastes to the proper solid or special waste disposal site or facility; and

(h) Employee safety, health, training and personal protective equipment to be used in inspection.

(3) The permittee shall implement the following to meet the requirements of subsection (1) of this section:

(a) The permittee shall have a program, as established in the approved permit, to inspect all waste entering the facility. The program to exclude non-permitted waste shall include:

1. Random inspections in time, but uniformly distributed to all waste sources based on volume; and

2. An inspection record including the following:

a. Name of the driver;

b. Name of the hauling company;

c. Mailing address of the hauling company;

d. Source of the waste;

e. Volume of the waste; and

f. Waste characteristics.

3. The permittee shall maintain a record of the inspections.

(b) Upon discovery of hazardous or PCB waste, the permittee shall isolate the load and notify the cabinet within one (1) business day.

(c) Upon discovery of non-permitted solid or special wastes, the permittee shall implement the procedures to remove and transport non-permitted solid or special wastes to a permitted solid or special waste landfill.

Section 5. Petroleum Contaminated Soil Characterization. (1) Petroleum contaminated soil shall be characterized as established in 401 KAR Chapter 42; or

(2)(a) Wastes shall be characterized according to the maximum dry weight concentration of pollutants based on the average concentration in a minimum of two (2) representative samples.

(b) The permittee shall take representative samples as established in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW–846, Update IV of the Third Edition.

(3)(a) Wastes shall be characterized by analyzing the following:

TABLE 1. Petroleum contaminated soil characterization parameters	
Number	**Parameter name**
1	Benzene
2	Toluene
3	Ethylbenzene
4	Xylene
5	Chrysene
6	Benzo(a)anthracene
7	Benzo(a)pyrene
8	Benzo(b)fluoranthene
9	Benzo(k)fluoranthene
10	Dibenzo(a,h)anthracene
11	Indeno(1,2,3-cd)pyrene
12	Acenaphthene
13	Acenaphthylene
14	Anthracene
15	Benzo(ghi)perylene
16	Fluoranthene

17	Fluorene
18	Phenanthrene
19	Pyrene
20	Naphthalene
21	Oil and grease (total)
22	Biochemical oxygen demand, 5-day (BOD_5)
23	pH
24	Electrical conductivity
25	Polychlorinated biphenyls, Total (PCBs)
26	Arsenic (total)
27	Boron (total)
28	Cadmium (total)
29	Calcium (total)
30	Chloride (total)
31	Chromium (total)
32	Copper (total)
33	Lead (total)
34	Mercury (total)
35	Molybdenum (total)
36	Nickel (total)
37	Selenium (total)
38	Sodium (total)
39	Zinc (total)

(4)(a) The permittee shall characterize chemical and physical waste parameters that are potential surface water or groundwater pollutants not in Table 1 of this section.

(b) The characterization shall include, based on generator knowledge, ingredients, additives, by-products, contaminants, lubricants, cleaning agents, hazardous constituents and chemicals from the following sources:

1. 401 KAR 47:030, Section 4 and 5, Environmental Performance Standards:

2. 401 KAR 5:031, Surface Water Standards;

3. U.S. EPA Regional Screening Levels (RSLs); and

4. Material safety data sheets.

(5)(a) Waste analysis shall be reported as the average of at least two representative samples on a dry weight basis.

(b) Dry weight pollutant concentrations shall be calculated by determining the pollutant concentration of the sample, and converting to dry weight (mg/kg) content using the percent solids of the original sample.

(6) The applicant shall obtain a new waste characterization as established in subsections (1) or (2) of this section for each source of petroleum contaminated soil.

Section 6. Treatment Standards and Disposition of Treated Soil (1)(a) The applicant shall treat petroleum contaminated soil such that the following parameters are equal to or less than the concentrations as established in Table 2 below:

Table 2. Petroleum Contaminated Soil Treatment Standards	
Benzene	0.01 ppm
Toluene	0.7 ppm
Ethylbenzene	0.9 ppm
Xylene	5.0 ppm
Chrysene	15 ppm
Benzo(a)anthracene	0.15 ppm
Benzo(a)pyrene	0.015 ppm
Benzo(b)fluoranthene	0.15 ppm
Benzo(k)fluoranthene	0.3 ppm
Dibenzo(a,h)anthracene	0.015 ppm
Indeno(1,2,3-cd)pyrene	0.15 ppm
Acenaphthene	10 ppm
Acenaphthylene	10 ppm
Anthracene	10 ppm
Benzo(ghi)perylene	10 ppm
Fluoranthene	10 ppm
Fluorene	10 ppm
Phenanthrene	10 ppm
Pyrene	10 ppm
Naphthalene	3.6 ppm
Methyl-tert-butylether (MTBE)	0.2 ppm
Lead	400 ppm
Arsenic	9.4 ppm
Cadmium	0.78 ppm
Chromium	21.3 ppm
Copper	28.0 ppm
Mercury	0.07 ppm
Nickel	21.7 ppm

Selenium	0.99 ppm
Zinc	57 ppm

(b) For metals, the permittee:

1. May establish background concentrations at the property of origination for each parameter in Table 2 of this section and treat the petroleum contaminated soil to the background level; and

2. Shall not release treated soil for placement within:

a. Four (4) vertical feet of the seasonal high groundwater table.

b. 250 feet of an intermittent or perennial stream.

(2)(a) The applicant shall take representative samples as established in 401 KAR Chapter 42 or samples as established in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW–846, Update IV of the Third Edition.

(b) The sample concentration shall meet subsection (1) of this section prior to release of treated soil from the facility.

(c) If the sample concentration does not meet subsection (1) of this section, the treated soil must be disposed in a permitted solid waste disposal facility.

(3) The permittee shall provide the following to individuals receiving treated soil:

(a) Copies of the treated soil analyses; and

(b) A brochure explaining the procedures to be utilized in the use of treated soil including setback requirements in paragraph (b)2 of subsection (1).

(4)The permittee shall not allow the volume of stored treated soil to exceed three (3) months' treatment capacity, as established in the permit under 401 KAR 47:205.

Section 7. Closure Plan and Cost Estimate. (1) A closure plan and cost estimate, as required in 401 KAR 47:205, Section 9, shall contain the following:

(a) The maximum storage capacity of untreated soil;

(b) The maximum amount of soil in the process of being treated;

(c) Transportation of petroleum contaminated soil;

(d) Disposal of untreated soil at a permitted disposal facility;

(e) Decommissioning of the liner and leachate collection system;

(f) Removal of processing equipment;

(g) Revegetation of disturbed areas; and

(h) Sampling of soils on-site to document that soil parameters comply with Section 6(1) of this administrative regulation.

(2) The cost estimate for closure under the requirements established in 401 KAR 48:310, Section 2 and KRS 224.40-650.

Section 8. Recordkeeping and Reporting. (1) The permittee of a petroleum contaminated soil treatment facility shall retain at the office of the facility for a period of five (5) years, the following information:

(a) The source, volume in cubic yards (CY), and date the contaminated soil was received for treatment;

(b) The monthly volume of treated soil in CY;

(c) The log of recipients who receive more than twenty (20) cubic yards of treated soil in any given month required to be included in the form DEP 5042, Annual Report for a Petroleum Contaminated Soil Treatment Facility;

(d) The biopile monitoring log required to be in the form DEP 5042, Annual Report for a Petroleum Contaminated Soil Treatment Facility; and

(e) The laboratory analysis reports.

(2)(a) The operator shall complete and submit to the cabinet by January 31 of each year, for the previous year, typed or printed legibly in permanent ink, the form DEP 5042, Annual Report for a Petroleum Contaminated Soil Treatment Facility.

(b) The annual report shall include:

1. Agency interest and permit number;

2. Name, address, and contact information for the applicant;

3. Name and certification number of the certified operator;

4. Petroleum contaminated soil information for each waste stream including:

a. Property of origination, name of property owner, and name of leaseholder;

b. Underground Storage Tank registration number, if applicable;

c. Hydrocarbon type;

d. Volume in cubic yards (CY);

e. Characterization as required by Section 5 of this administrative regulation.

5. The volume of treated soils:

a. Prepared for distribution;

b. Distributed from the facility;

c. Disposed at a permitted solid waste disposal facility; or

d. Reused on-site as a recovered material.

6. Treated soil analytical information for each biopile or sample unit;

7. Copies of laboratory analysis reports for the reporting year; and

8. The information in subsection (1) of this section for the previous twelve months.

Section 9. Incorporation by Reference. (1) The following documents are incorporated by reference:

(a) "How to Evaluate Alternative Cleanup Technologies for Underground Storage Tank Sites: A Guide for Corrective Action Plan Reviewers" (EPA 510-B-94-003; EPA 510-B-95-007; and EPA 510-R-04-002), Chapter IV, Biopiles, and Chapter VI, Low-Temperature Thermal Desorption;

(b) U.S. EPA "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Update IV of the Third Edition;

(c) "Petroleum Contaminated Soil Treatment Facility Annual Report", DEP 5042, (April 2011); and

(d) U.S. EPA "Regional Screening Levels", November 2010.

(2)(a) The material in subsection (1)(a) of this section may be obtained at:

1. National Technical Information Service (NTIS); U.S. Department of Commerce, 5285 Port Royal Road, Springfield, VA 22161; or

2. http://www.epa.gov/oust/pubs/tums.htm

(b) The material in subsection (1)(b) of this section may be obtained at:

1. National Technical Information Service (NTIS); U.S. Department of Commerce, 5285 Port Royal Road, Springfield, VA 22161; or

2. http://www.epa.gov/epawaste/hazard/testmethods/sw846/online/index.htm;

(c) The material in subsection (1)(d) of this section may be obtained at http://www.epa.gov/region9/superfund/prg/ .

(d) This material may be inspected, copied, or obtained, subject to applicable copyright law, at the Division of Waste Management, 200 Fair Oaks Lane, Second Floor, Frankfort, Kentucky 40601, Monday through Friday, 8 a.m. to 4:30 p.m.

(4) The material in subsection (1) of this section may also be obtained from the Division of Waste Management's web site at http://waste.ky.gov.

401 KAR 48:205 approved for filing.

4/14/11
Date

Leonard K. Peters, Secretary
Energy and Environment Cabinet

PUBLIC HEARING AND PUBLIC COMMENT PERIOD: A public hearing on this administrative regulation shall be held on May 23, 2011 at 10:00 A.M. (Eastern Time) at 300 Fair Oaks, Frankfort, KY 40601. Individuals interested in being heard at this hearing shall notify this agency in writing by May 16, 2011, five workdays prior to the hearing, of their intent to attend. If no notification of intent to attend the hearing is received by that date, the hearing may be cancelled. This hearing is open to the public. Any person who wishes to be heard will be given an opportunity to comment on the proposed administrative regulation. A transcript of the public hearing will not be made unless a written request for a transcript is made. If you do not wish to be heard at the public hearing, you may submit written comments on the proposed administrative regulation. Written comments shall be accepted until May 31, 2011. Send written notification of intent to be heard at the public hearing or written comments on the proposed administrative regulation to the contact person.

CONTACT PERSON: Kelli Reynolds
Division of Waste Management
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Frankfort, KY 40601
Telephone: (502) 564-6716 Fax (502) 564-4049
Email: Kelli.Reynolds@ky.gov

REGULATORY IMPACT ANALYSIS AND TIERING STATEMENT

Contact Person: KELLI REYNOLDS

(1) Provide a brief summary of:

(a) What this administrative regulation does:

This administrative regulation establishes requirements for petroleum contaminated soil treatment facilities.

(b) The necessity of this administrative regulation:

This administrative regulation is necessary to establish technical requirements for petroleum contaminated soil treatment facilities.

(c) How this administrative regulation conforms to the content of the authorizing statutes:

This administrative regulation conforms to the content of the authorizing statutes by establishing technical requirements for petroleum contaminated soil treatment facilities, which are a type of solid waste site or facility.

(d) How this administrative regulation currently assists or will assist in the effective administration of the statutes:

This administrative regulation will assist in the effective administration of the statutes by establishing technical requirements for petroleum contaminated soil treatment facilities which will protect the environment.

(2) If this is an amendment to an existing administrative regulation, provide a brief summary of:

(a) How the amendment will change this existing administrative regulation: NA

(b) The necessity of the amendment to this administrative regulation: NA

(c) How the amendment conforms to the content of the authorizing statutes: NA

(d) How the amendment will assist in the effective administration of the statutes: NA

(3) List the type and number of individuals, businesses, organizations, or state and local governments affected by this administrative regulation:

Businesses that treat petroleum contaminated soils will be affected by this administrative regulation. There are currently 3 permitted by the Solid Waste Branch.

(4) Provide an analysis of how the entities identified in question (3) will be impacted by either the implementation of this administrative regulation, if new, or by the change, if it is an

amendment, including:

(a) List the actions that each of the regulated entities identified in question (3) will have to take to comply with this administrative regulation or amendment:

Regulated entities will have to comply with the technical requirements for siting, soil characterization, treatment standards, closure plans and cost estimates, and record keeping and reporting.

(b) In complying with this administrative regulation or amendment, how much will it cost each of the entities identified in question (3):

The cost to implement this type of permit for an existing facility would be approximately $175,000 per acre for the plastic liner and the storage building will be dependent on the size of the building. Groundwater monitoring will not be an additional cost since the existing facilities have monitoring wells already installed.

(c) As a result of compliance, what benefits will accrue to the entities identified in question (3):

As a result of compliance with this administrative regulation, entities will be able to get a permit for a petroleum contaminated soil treatment facility.

(5) Provide an estimate of how much it will cost the administrative body to implement this administrative regulation:

(a) Initially: None

(b) On a continuing basis: None

(6) What is the source of the funding to be used for the implementation and enforcement of this administrative regulation:

This regulation will be implemented and enforced using the solid waste permit fees collected pursuant to 401 KAR 47:090 and general funds.

(7) Provide an assessment of whether an increase in fees or funding will be necessary to implement this administrative regulation, if new, or by the change if it is an amendment:

There will be no increase of fees and no additional funding is necessary to implement this regulation.

(8) State whether or not this administrative regulation established any fees or directly or indirectly increased any fees:

This administrative regulation does not establish any fees.

(9) TIERING: Is tiering applied? (Explain why or why not)

Tiering is not applied. The technical requirements established in this administrative regulation apply to all petroleum contaminated soil treatment facilities.

FISCAL NOTE ON STATE OR LOCAL GOVERNMENT

Regulation No. 401 KAR 48:205 Contact Person: Kelli Reynolds

1. Does this administrative regulation relate to any program, service, or requirements of a state or local government (including cities, counties, fire departments, or school districts)?
Yes __X___ No _____
If yes, complete questions 2-4.

2. What units, parts or divisions of state or local government (including cities, counties, fire departments, or school districts) will be impacted by this administrative regulation?
Kentucky Division of Waste Management

3. Identify each state or federal statute or federal regulation that requires or authorizes the action taken by the administrative regulation.
KRS 224.10-100 and 224.40-305

4. Estimate the effect of this administrative regulation on the expenditures and revenues of a state or local government agency (including cities, counties, fire departments, or school districts) for the first full year the administrative regulation is to be in effect.

(a) How much revenue will this administrative regulation generate for the state or local government (including cities, counties, fire departments, or school districts) for the first year?
None.

(b) How much revenue will this administrative regulation generate for the state or local government (including cities, counties, fire departments, or school districts) for subsequent years?
None.

(c) How much will it cost to administer this program for the first year?
No additional cost to the Division of Waste Management.

(d) How much will it cost to administer this program for subsequent years?
No additional cost to the Division of Waste Management.

Note: If specific dollar estimates cannot be determined, provide a brief narrative to explain the fiscal impact of the administrative regulation.
Revenues (+/-):
Expenditures (+/-):
Other Explanation:

Detailed Summary of Material Incorporated by Reference

I. This administrative regulation incorporates by reference the ""How to Evaluate Alternative Cleanup Technologies for Underground Storage Tank Sites: A Guide for Corrective Action Plan Reviewers" (EPA 510-B-94-003; EPA 510-B-95-007; and EPA 510-R-04-002), Chapter IV, Biopiles, and Chapter VI, Low-Temperature Thermal Desorption. This document is to provide technical guidance to state regulators who oversee cleanups and evaluate corrective action plans for treating petroleum contaminated soils with Biopiles and Low-Temperature Thermal Desorption.

This document consists of 65 pages.

II. This administrative regulation incorporates by reference the U.S. EPA "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Update IV of the Third Edition. This document is to be used to find chemical and physical methods of sampling and analyses of contaminants.

This document consists of 3500 pages.

III. This administrative regulation incorporates by reference "Petroleum Contaminated Soil Treatment Facility Annual Report", DEP 5042, (April 2011). This form must be completed and submitted to the cabinet by persons operating a petroleum contaminated soil treatment facility.

This document consists of 8 pages.

IV. This administrative regulation incorporates by reference U.S. EPA "Regional Screening Levels", November 2010. This document is used for establishing regional screening levels for contaminants.

This document consists of 200 pages.